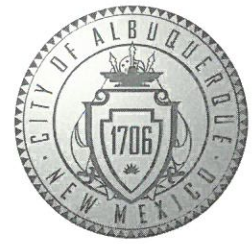


CITY OF ALBUQUERQUE



October 24, 2017

Mike Balaskovits, PE
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

**RE: Broadstone Highlands North Block
Grading and Drainage Plan
Engineer's Stamp Date: 10/12/17
Hydrology File: K15D034A**

Dear Mr. Balaskovits:

Based on the information provided in the submittal received on 10/19/17 the above-referenced Grading and Drainage Plan cannot be approved Grading, Foundation, or Building Permit the following conditions are met:

1. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov).
2. A revocable permit for the footer encroachment into the Cedar St public ROW is required.
3. Construction plans for work in the public ROW need be to be submitted to DRC for review.
4. Payment of the Fee in Lieu (Amount = $2,664\text{CF} \times \$8/\text{CF}$, per sheet C0.01) for the required first flush volume must be made.

Prior to requesting Hydrology approval for Certificate of Occupancy the following will be required:

1. City acceptance and close-out of the public Work Order.
2. The Drainage Certification will need to include all top of Retaining Wall Elevations.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana M. Peterson
Senior Engineer, Planning Dept.
Development Review Services

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: James D. Hughes
City of Albuquerque
600 2nd St. NW
Albuquerque, NM 87102

Requested by: Michael Balaskovits

Date: October 18, 2017

Time Due: ☐ This A.M.
☒ This P.M.
☐ Rush
☐ By Tomorrow

Phone: (505) 924-3880

DELIVERY VIA

☒ Courier ☐ Federal Express
☐ Mail ☐ UPS
☐ Other

PICK UP

Item: _____

Job No.: 20160154

Job Name: Broadstone Highlands North
Block

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	1	Drainage Info Sheet
2	1	Drainage Management Plan
3	1	Grading Plan
4	1	Proposed Cross Sections
5	1	Comment Response Letter

COMMENTS / INSTRUCTIONS

James,

Please find attached the Drainage Management Plan for Broadstone Highlands North Block. We are requesting Hydrology approval in support of Building Permit Approval, Rough Grading Approval, Foundation Approval, & Work Order Approval. Let me if you have any questions.

Thanks,
Mike

REC'D BY: _____ DATE: _____ TIME: _____



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Engineering Firm: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Architect: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

- ☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

October 18, 2017

Mr. James D. Hughes, P.E.
City of Albuquerque
Planning Department
600 2nd Street NW
Albuquerque, NM 87103

Re: Broadstone Highlands North Block / Hydrology File K15D034A

Dear Mr. Hughes:

Enclosed for your review and comment is a re-submittal of Broadstone Highlands North Block Grading & Drainage Plan. Please see the responses to your comments dated 09/13/17 below:

1. Provide multiple section views of the retaining walls along Tijeras, Cedar, and Copper to ensure that adjacent properties and ROW are not damaged or constrained in their use by these walls (per DPM Ch.22.5.B). These sections views should show the following:
 - a. Wall and footer, including dimensions and retained height.
 - b. ROW and easements.
 - c. Underground utilities and their trenching prisms.
 - d. Existing structures, such as sidewalk, curb and gutter, and roadway.
 - e. Temporary slope during construction.

Response: Please see the attached "Proposed Street Sections" exhibit.

2. Depending on the above potential conflicts, the following will be required:
 - a. Any private encroachment into the public ROW by the footer, retaining wall or any structure will require a revocable permit.
 - b. Any private encroachment into public easements by the footer, retaining wall or any structure will require an encroachment agreement.

Response: A revocable permit and encroachment agreement will be entered into with the City of Albuquerque to accommodate the retaining walls surrounding the site.

3. Provide size/type information for all ROW drainage improvements.

Response: The sizes/types of drainage infrastructure has been indicated on the Drainage Management Plan.

4. For the drop inlet replacement at the northwest corner, the 12" storm drain line will need to be replaced to the manhole with an 18" storm drain line, similar to what's being done at the southwest corner inlet.

Response: The existing 12" storm drain line at the northwest corner of the site will be replaced with a new 18" storm drain line as requested. Please see grading plan.

Engineering ▲

Spatial Data ▲

Advanced Technologies ▲

5. Construction plans for work in the public ROW will be to be submitted to DRC for review.

Response: Public infrastructure plans will be submitted to DRC for review.

6. Include note on grading plan: "No construction permitted in public ROW without an approved Work Order."

Response: This note has been added to the grading plan.

7. Payment of the Fee in Lieu (Amount = $2,662 \text{ CF} \times \$8/\text{CF}$) for the required first flush volume must be made.

Response: This payment will be made based on the formula above in the amount of \$21,296.00.

We are requesting Hydrology Approval in support of Building Permit approval, Foundation Permit approval, Grading Permit approval, & Work Order approval. Please feel free to contact me at 823-1000 with questions or comments.

Sincerely,

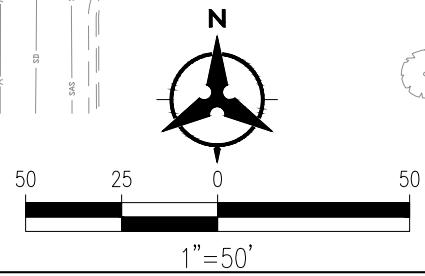
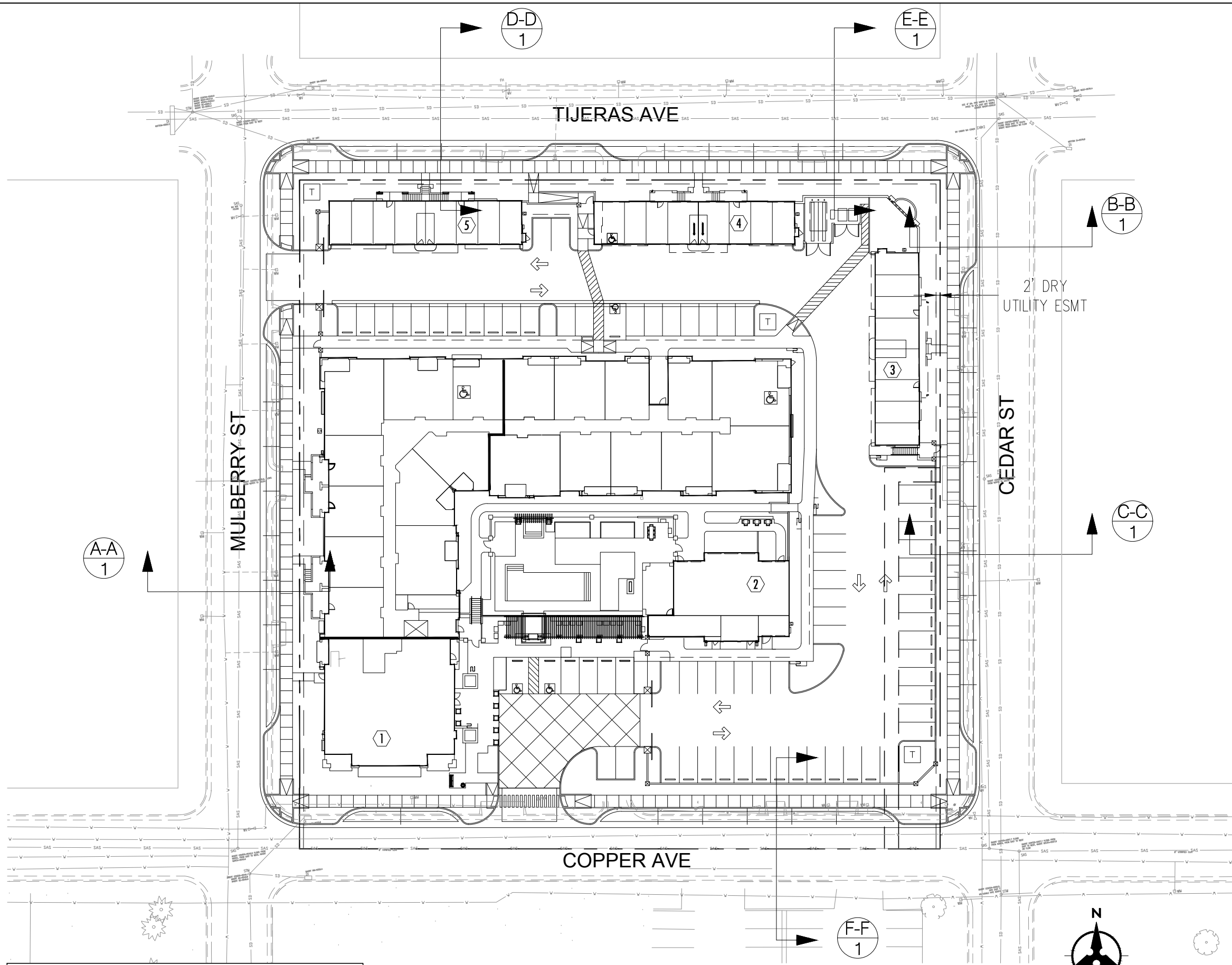


Mike Balaskovits, PE
Vice President
Community Development and Planning

MJB/egn
Enclosure

P:\20160154\QP\Plans\General\20160154_SPPB_X-Sections_Overall.dwg
October 17, 2017 - 1:05pm
Layout1

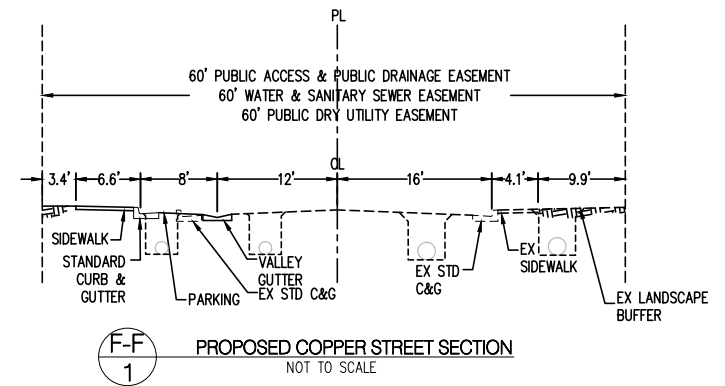
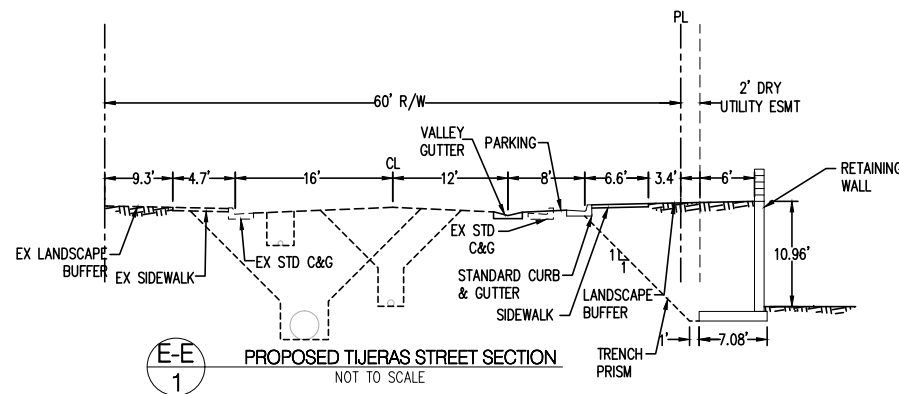
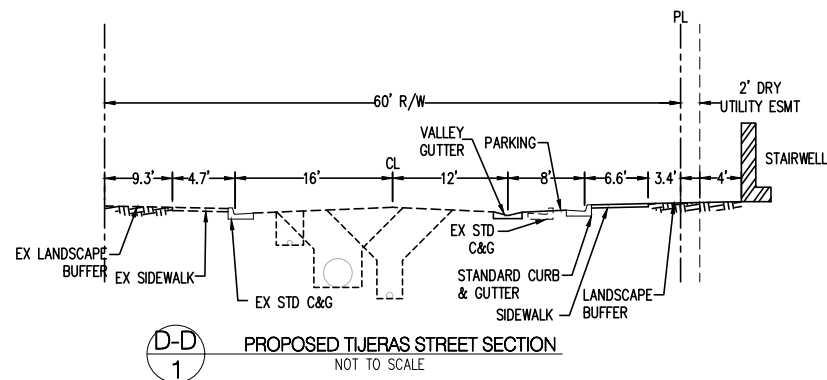
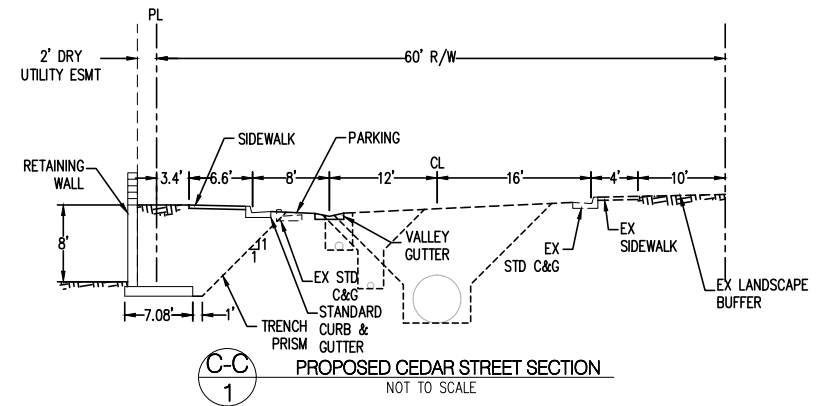
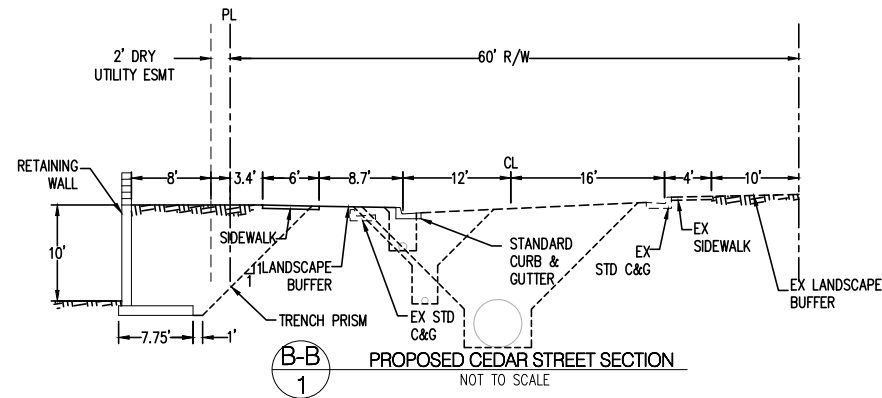
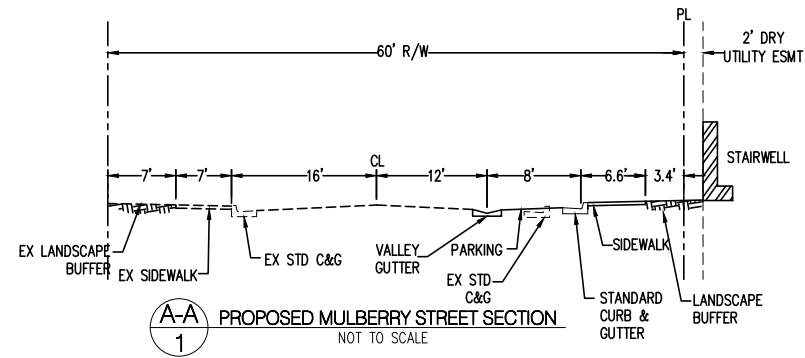
Bohannon  **Huston**



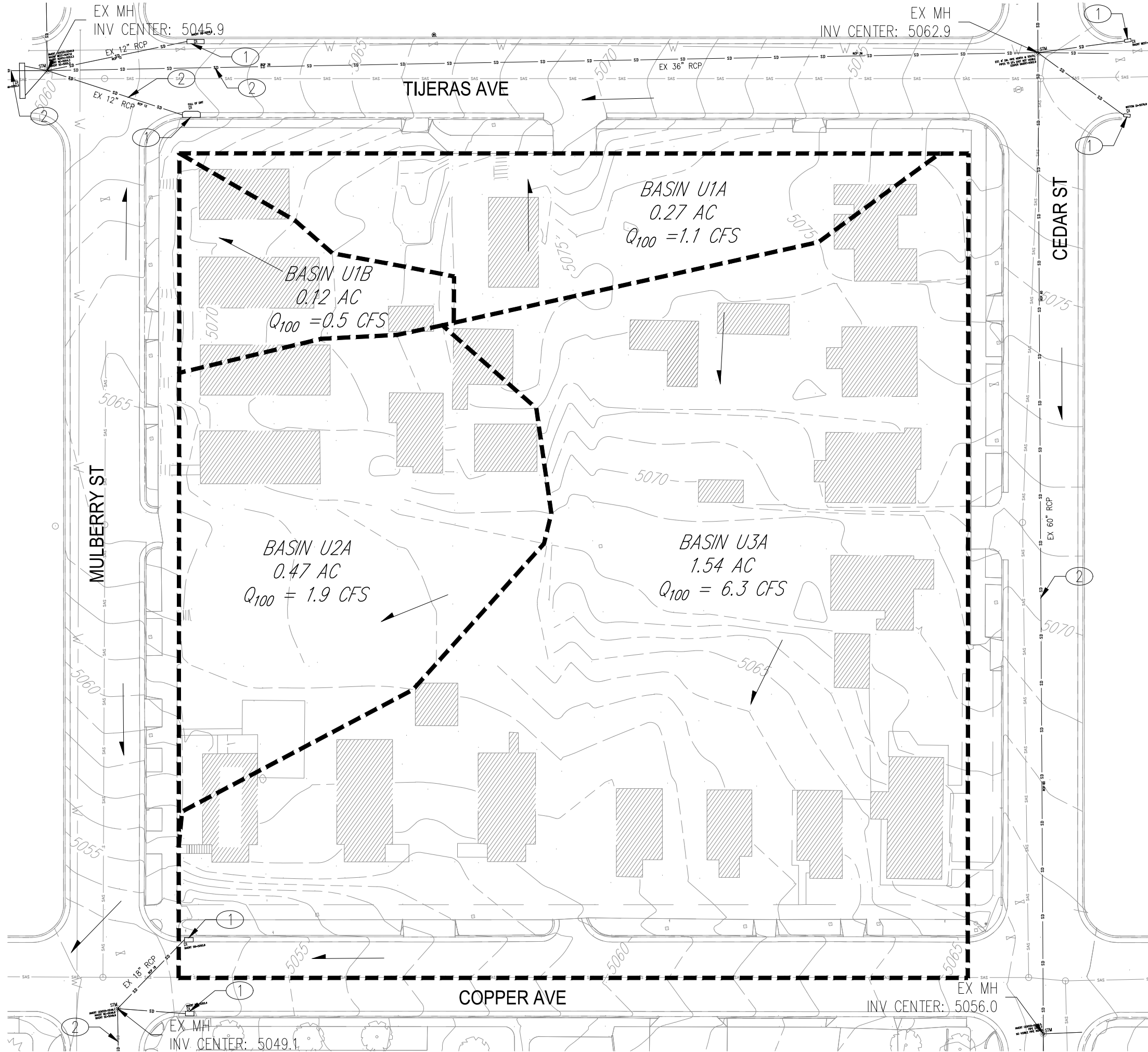
**BROADSTONE HIGHLANDS
NORTH BLOCK**

PROPOSED STREET SECTIONS

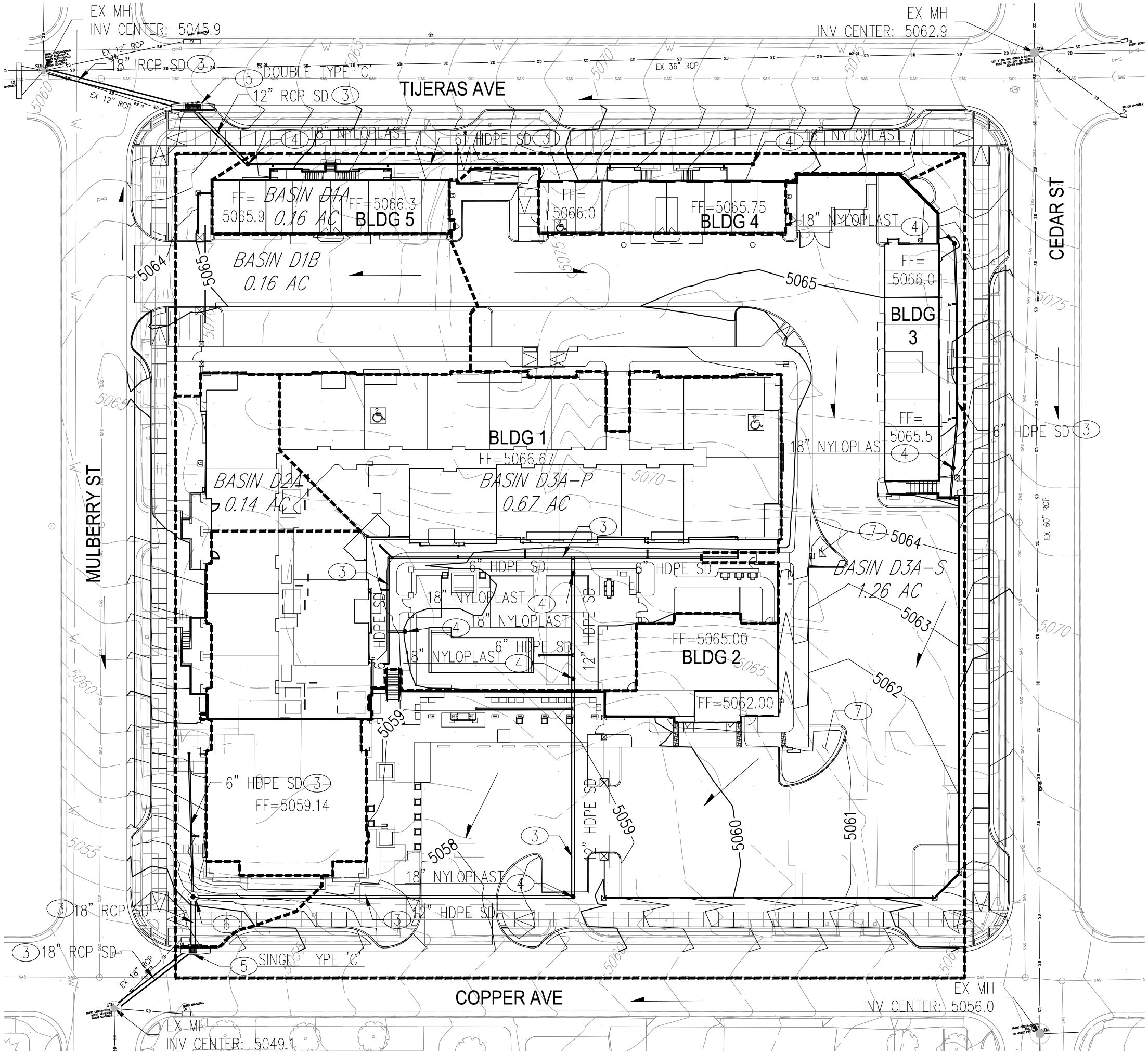
DRAWN BY:	EGN	DATE:	10/18/17
CHECKED BY:	MJB	PROJECT NO.	20160155
		SHEET NO.	1 of 2



FILE:P:\20160154\CDP\Plans\General\20160154_N_DMP.dwg USER:enwman DATE:Oct. 18 2017 TIME: 08:02 am



EXISTING CONDITIONS



PROPOSED CONDITIONS

KEYNOTES

- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED RELOCATED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED WATER HARVESTING AREA

GRADING LEGEND

---	PROPERTY LINE	=====	PROPOSED CURB & GUTTER
---5025---	EXISTING INDEX CONTOUR	----->	DIRECTION OF FLOW
---5024---	EXISTING INTERMEDIATE CONTOUR	-----	WATER BLOCK/GRADE BREAK
---5025---	PROPOSED INDEX CONTOUR	---SD---	PROPOSED STORM DRAIN LINE
---5024---	PROPOSED INTERMEDIATE CONTOUR	●	PROPOSED STORM DRAIN MANHOLE
---	EXISTING BASIN BOUNDARY	---SD---	PROPOSED STORM DRAIN INLETS
-----	PROPOSED BASIN BOUNDARY	---	PROPOSED RETAINING WALL
---	EASEMENT		
BASIN UXX	EXISTING BASIN ID		
BASIN DXX	PROPOSED BASIN ID		
BASIN DXX-P	PROPOSED BASIN ID-PIPED		
BASIN DXX-S	PROPOSED BASIN ID-SHEET FLOW		

BASIN COMPARISON ID	Difference from Onsite Existing Conditions to Proposed Conditions
	Q(100yr) (CFS)
1A	-0.37
1B	0.27
2A	-1.28
3A	2.52

NOTE: '+' indicates an increase in Q from existing to proposed. '-' indicates a decrease in Q from existing to proposed.

DRAINAGE NARRATIVE

EXISTING CONDITIONS:

THE SITE IS APPROXIMATELY 2.4 ACRES (INCLUSIVE OF RECENTLY VACATED ALLEYS AND RIGHT OF WAYS), SITUATED AT THE NORTHEAST CORNER OF COPPER AVE AND MULBERRY ST. THIS SITE HAS HISTORICALLY BEEN FULLY DEVELOPED AS A DETACHED MULTI-FAMILY HOUSING DEVELOPMENT.

THE SITE IS DIVIDED INTO FOUR ONSITE BASINS THAT DRAIN TO DIFFERENT STORM DRAIN NETWORKS. BASIN U1A CURRENTLY SHEET FLOWS INTO TJERAS AVE AND IS CAPTURED BY AN EXISTING INLET. BASIN U1B SHEET FLOWS TO MULBERRY ST AND DISCHARGES INTO A LARGE INLET WITHIN THE INTERSECTION OF TJERAS AVE & MULBERRY ST. BASIN U2A SHEET FLOWS INTO MULBERRY AVE AND CONTINUES TO HEAD SOUTH TO COPPER AND ULTIMATELY WEST IN COPPER AVE TO AN INLET LOCATED IN OAK ST. BASIN U3A CURRENTLY DISCHARGES INTO COPPER AVE AND IS CAPTURED BY AN EXISTING INLET AT THE INTERSECTION OF COPPER AVE & MULBERRY ST. THERE IS NO OFFSITE DRAINAGE THAT ENTERS THE SITE.

THE TOTAL ONSITE EXISTING FLOW RATE FROM THE CURRENT DEVELOPMENT IS APPROXIMATELY 9.8 CFS.

PROPOSED CONDITIONS:

THE BROADSTONE HIGHLANDS NORTH BLOCK WILL INCLUDE A NEW MULTI-FAMILY COMPLEX (BLDG 1), A FITNESS BUILDING (BLDG 2), AND THREE CARRIAGE UNITS (BLDG 3-5) THAT SIT AT THE NORTHEAST CORNER OF COPPER AVE & MULBERRY ST. ADDITIONAL ON STREET PARKING WILL BE PROVIDED AS A PART OF THIS PROJECT. A PUBLIC WORK ORDER WILL CONSTRUCT THESE SPACES AND INCLUDE MINOR INLET IMPROVEMENTS BASED ON THE NEW CURB LOCATION. THIS SITE HAS HISTORICALLY BEEN FULLY DEVELOPED AND IS CONSIDERED AN INFILL PROJECT. THE IMPERVIOUS AREA OF THE SITE WILL INCREASE TO 90% D AND 10% C FOR DEVELOPED FLOWS.

DEVELOPED BASINS

THE DEVELOPED BASINS WILL GENERALLY ADHERE TO THE HISTORIC FLOW WITH A FEW EXCEPTIONS. THE FOLLOWING IS A DESCRIPTION OF HOW EACH BASIN WILL DRAIN. PLEASE REFER TO THE 'ULTIMATE DEVELOPED CONDITIONS BASIN DATA TABLE' FOR THE PROPOSED BASIN FLOWS.

BASIN D1A HAS BEEN REDUCED AND WILL CONTINUE TO DISCHARGE INTO THE EXISTING STORM DRAIN WITHIN TJERAS AVE. ROOF DRAINAGE FROM BUILDINGS 4 & 5 WILL BE ULTIMATELY PIPED INTO THE PROPOSED RELOCATED INLET IN TJERAS AVE, AS WELL AS THE SURFACE DRAINAGE ALONG THE FRONTAGE OF THE BUILDINGS. THE REMAINDER OF THIS BASIN WILL DRAIN VIA SURFACE FLOW INTO THE ROADWAY TO THE SAME INLET.

BASIN D1B INCREASED SLIGHTLY AND WILL CONTINUE TO DISCHARGE (VIA SHEET FLOW) INTO THE LARGE EXISTING INLET WITHIN TJERAS AVE & MULBERRY ST.

BASIN D2A IS A SMALL BASIN ALONG THE WESTERN FACE OF BUILDING 1 AND A PORTION OF THE BUILDING 1 ROOF DRAIN THAT WILL SURFACE FLOW INTO MULBERRY UNTIL IT REACHES INLETS LOCATED AT THE INTERSECTION OF COPPER AVE AND OAK ST. THIS BASIN AREA WAS REDUCED BASED ON THE PROPOSED GRADING FOR THIS BLOCK.

BASIN D3A-S INCLUDES A PORTION OF THE SITE'S HARDSCAPE AS WELL AS ROOF DRAINAGE FROM BUILDINGS 2 & 3. THIS BASIN WILL SHEET FLOW INTO COPPER AVE AND BE CAPTURED IN THE PROPOSED RELOCATED INLET WHICH ULTIMATELY TIES TO THE EXISTING 21" RCP LINE THAT RUNS IN MULBERRY ST.

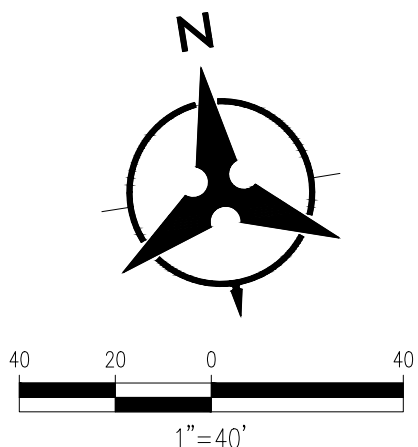
BASIN D3A-P INCLUDES ROOF DRAINAGE FROM BUILDING 1 AND THE POOL DECK AREA THAT WILL BE PIPED DIRECTLY INTO THE COPPER AVE PROPOSED RELOCATED INLET WHICH ULTIMATELY TIES TO THE EXISTING 21" RCP LINE THAT RUNS IN MULBERRY ST.

THE TOTAL ONSITE PROPOSED FLOW RATE FROM THE PROPOSED DEVELOPMENT IS APPROXIMATELY 10.9 CFS. COMPARISON OF THE FLOW BETWEEN EXISTING AND PROPOSED CONDITIONS WAS FOUND HAVE AN OVERALL INCREASE OF APPROXIMATELY 1.1 CFS, OVERALL INDICATING THAT THE HISTORICAL DEVELOPED FLOWS ARE CLOSE TO THE SITE'S PROPOSED DEVELOPED CONDITIONS.

CONCLUSION:

DUE TO THE SIGNIFICANT GRADE CHANGE OF APPROXIMATELY 24 FEET ACROSS THE SITE AND THE DENSITY OF THIS PROJECT IN AN INFILL DEVELOPMENT, THE OWNER HAS DISCUSSED WITH CITY STAFF THE USE OF CASH IN LIEU TO ACCOMPLISH THE "FIRST FLUSH" REQUIREMENTS. ISLANDS WILL BE DEPRESSED WHERE APPLICABLE AND SERVE AS WATER HARVESTING AREAS BUT WILL NOT MEET THE FIRST FLUSH VOLUME REQUIRED.

THE DEVELOPED FLOWS FOR THIS SITE GENERALLY REMAINS UNCHANGED FROM THE EXISTING CONDITIONS, HOWEVER THIS PLAN DIVERTS FLOWS DIRECTLY INTO THE PROPOSED INLET WITHIN COPPER AVE. THE EXISTING ROADWAY SLOPES WILL REMAIN THE SAME. THESE ADJUSTMENTS DEMONSTRATE THAT THE DRAINAGE ELEMENTS PROPOSED WITH THE PROJECT ARE CAPABLE OF SAFELY CONVEYING THE 100 YR, 6 HR STORM EVENT IN ACCORDANCE WITH THE DEVELOPMENT PROCESS MANUAL. WITH THIS SUBMITTAL, WE ARE REQUESTING COA HYDROLOGY APPROVAL IN SUPPORT OF BUILDING PERMIT APPROVAL, FOUNDATION PERMIT APPROVAL, GRADING PERMIT APPROVAL, & WORK ORDER APPROVAL.

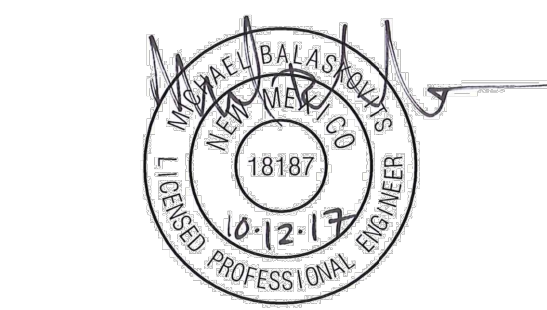


BROADSTONE HIGHLANDS

NWC CEDAR ST AND COPPER AVE
ALBUQUERQUE, NEW MEXICO



WorldHQ@ORBArch.com



NOT FOR CONSTRUCTION



Bohannon & Huston
www.bhnc.com 800.877.5332

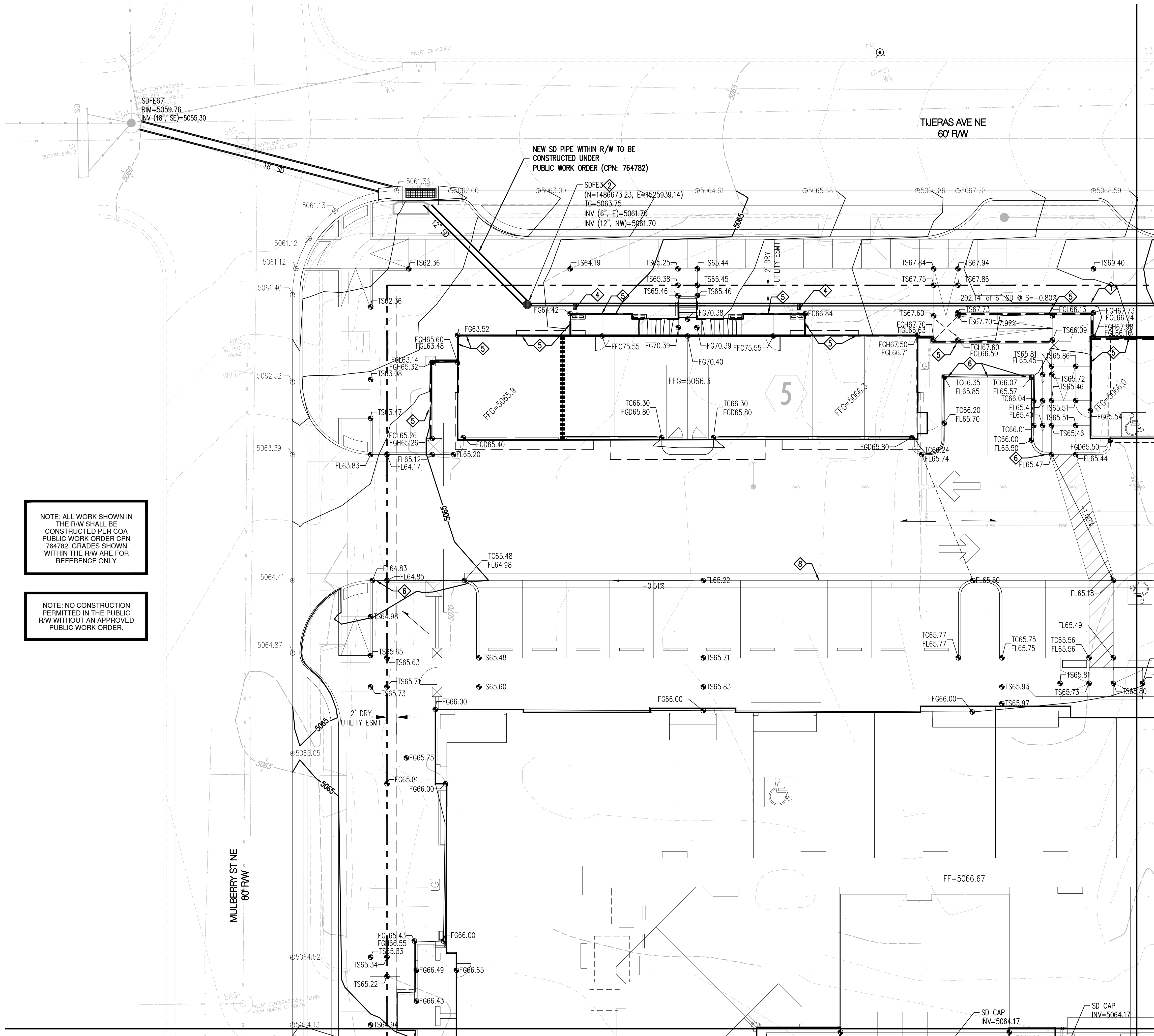
REVISIONS

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DATE: AUGUST 31, 2017 ORB # 16-210

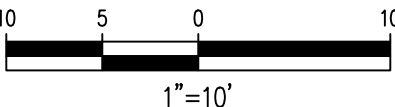
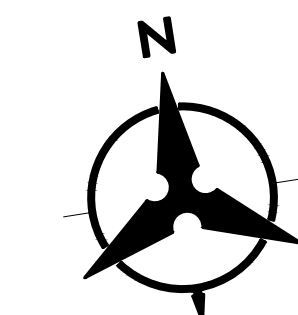
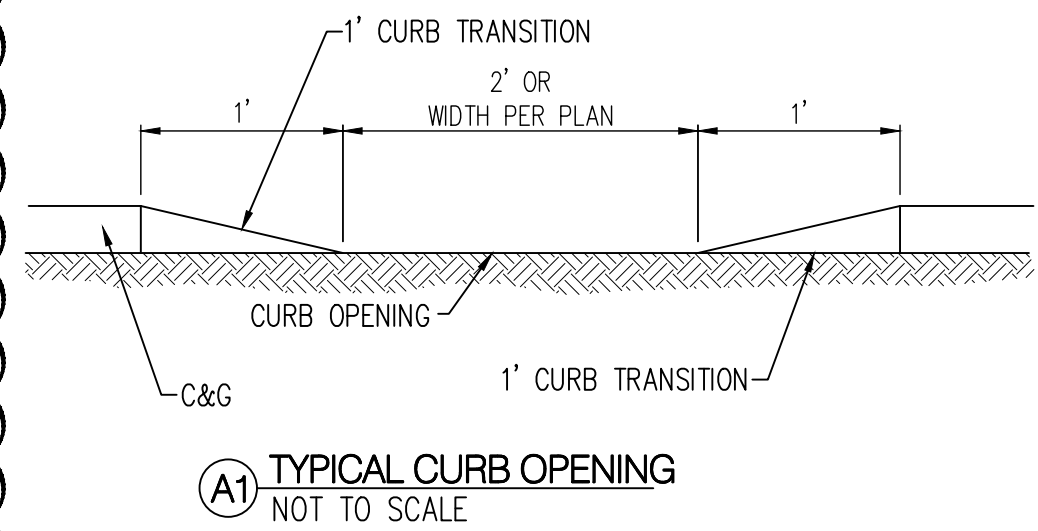
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DRAINAGE
MANAGEMENT PLAN



GRADING KEYNOTES

1. INSTALL HDPE (N12 WT, OR APPROVED EQUAL) STORM DRAIN PIPE (SIZE PER PLAN)
2. INSTALL 18" NYLOPLAST STORM DRAIN INLET OR APPROVED EQUAL PER MANUFACTURES SPECIFICATIONS.
3. INSTALL PRE-FABRICATED STORM DRAIN FITTING, EXTEND 6" LINE, CONNECT TO POOL DECK DRAINS; SEE POOL PLANS FOR EXACT LOCATION
4. STUB PROPOSED ROOF DRAIN CONNECTIONS WITHIN 5' OF THE BUILDING; SEE PLUMBING PLANS FOR CONTINUATION
5. INSTALL RETAINING WALL; SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS
6. INSTALL CURB OPENING PER DETAIL A1 THIS SHEET
7. DAYLIGHT STORM DRAIN IN WALL INTO CURB AND GUTTER OF PARKING AREA.
8. INSTALL 3" WIDE CONCRETE VALLEY GUTTER PER COA STD. DWG. 2421
9. INSTALL 24" SIDEWALK CULVERT PER COA STD. DWG. 2236
10. INSTALL TYPE 'C' MANHOLE PER COA STD. DWG. 2101
11. INSTALL PRE-FABRICATED STORM DRAIN FITTING, EXTEND 6" LINE. SEE HARDSCAPE PLANS FOR EXACT LOCATION OF FIRE PIT INLET.
12. INSTALL 24" CONCRETE RUNDOWN PER COA STD DWG 2236 (SANS STEEL COVER)



GRADING LEGEND

---	PROPERTY LINE	---	PROPOSED CURB & GUTTER
---	PROJECT LIMITS OF GRADING	---	DIRECTION OF FLOW
---	EXISTING INDEX CONTOUR	---	WATER BLOCK/GRADE BREAK
---	EXISTING INTERMEDIATE CONTOUR	---	PROPOSED STORM DRAIN LINE
⊕ 5025.25	EXISTING GROUND SPOT ELEVATION	⊕	PROPOSED STORM DRAIN MANHOLE
---	PROPOSED INDEX CONTOUR	⊕	PROPOSED STORM DRAIN INLETS
---	PROPOSED INTERMEDIATE CONTOUR	---	PROPOSED RETAINING WALL
---	PROPOSED FLOW LINE	---	EASEMENT
⊕ 26.75	PROPOSED FINISHED GRADE SPOT ELEVATION	---	FF STEP
	TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK, TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW, FFG=FINISH FLOOR GARAGE, FFC=FINISH FLOOR CARRIAGE, FGD=FINISH GROUND DRIVEWAY		

BROADSTONE HIGHLANDS NORTH

NWC CEDAR ST AND COPPER AVE
ALBUQUERQUE, NEW MEXICO



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REVISIONS

△	8/30/17	1ST CITY REVIEW
△	8/30/17	DESIGN TEAM COORDINATION
△	10/12/17	2ND CITY REVIEW
△	10/12/17	DESIGN TEAM COORDINATION

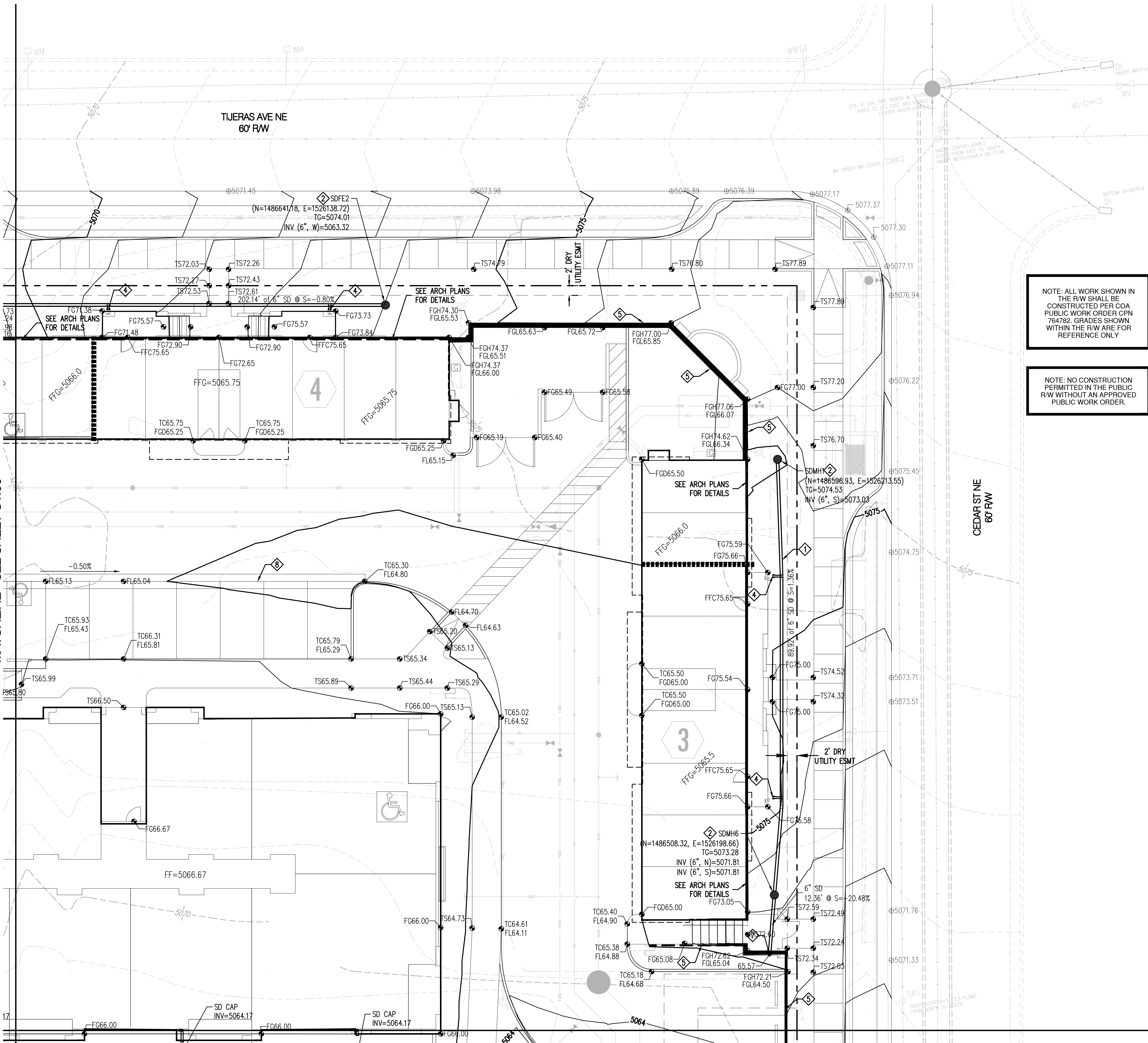
THIRD CITY SUBMITTAL

DATE: OCTOBER 12, 2017 ORB # 16-210

C1.00

OVERALL
GRADING PLAN

MATCHLINE - SEE SHEET C1.00



MATCHLINE - SEE SHEET C1.02

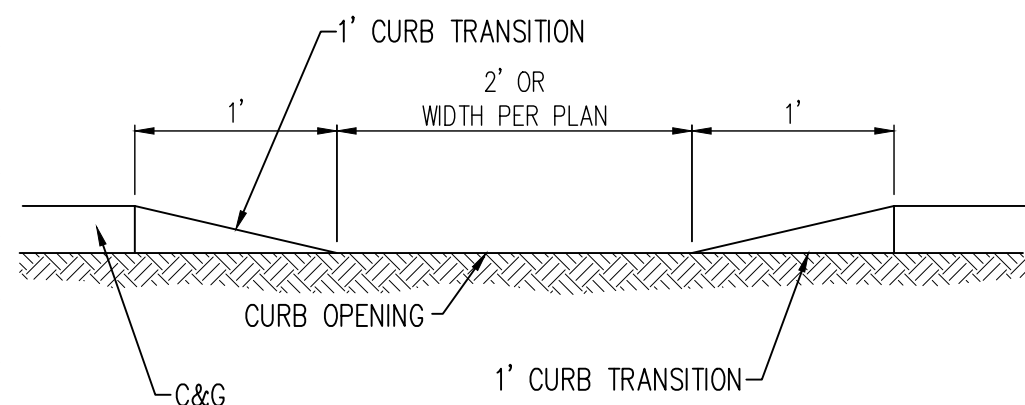
GRADING KEYNOTES

1. INSTALL HDPE (N12 WT, OR APPROVED EQUAL) STORM DRAIN PIPE (SIZE PER PLAN)
2. INSTALL 18" NYLOPLAST STORM DRAIN INLET OR APPROVED EQUAL PER MANUFACTURES SPECIFICATIONS.
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12. INSTALL 24" CONCRETE RUNDOWN PER COA STD DWG 2236 (SANS STEEL COVER)

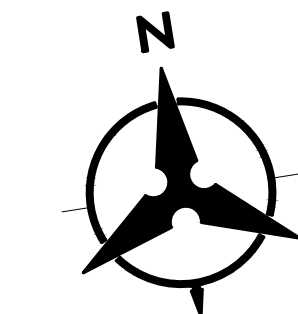
NOTE: ALL WORK SHOWN IN THE R/W SHALL BE CONSTRUCTED PER COA PUBLIC WORK ORDER CPN 764782. GRADES SHOWN WITHIN THE R/W ARE FOR REFERENCE ONLY

NOTE: NO CONSTRUCTION PERMITTED IN THE PUBLIC R/W WITHOUT AN APPROVED PUBLIC WORK ORDER.

4



(A1) TYPICAL CURB OPENING
NOT TO SCALE



10 5 0 10
1"=10'

GRADING LEGEND

---	PROPERTY LINE	---	PROPOSED CURB & GUTTER
---	PROJECT LIMITS OF GRADING	---	DIRECTION OF FLOW
---	EXISTING INDEX CONTOUR	---	WATER BLOCK/GRADE BREAK
---	EXISTING INTERMEDIATE CONTOUR	---	PROPOSED STORM DRAIN LINE
---	EXISTING GROUND SPOT ELEVATION	---	PROPOSED STORM DRAIN MANHOLE
---	PROPOSED INDEX CONTOUR	---	PROPOSED STORM DRAIN INLETS
---	PROPOSED INTERMEDIATE CONTOUR	---	PROPOSED RETAINING WALL
---	PROPOSED FLOW LINE	---	EASEMENT
---	PROPOSED FINISHED GRADE SPOT ELEVATION	---	FF STEP
---	TC=TOP OF CURB, TS=TOP OF SIDEWALK, TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW, FFG=FINISH FLOOR GARAGE, FFC=FINISH FLOOR CARRIAGE, FGD=FINISH GROUND DRIVEWAY		

BROADSTONE HIGHLANDS NORTH

NWC CEDAR ST AND COPPER AVE
ALBUQUERQUE, NEW MEXICO

Office of Rich Barber
ORB
Architecture, LLC

WorldHQ@ORBArch.com



TITAN
DEVELOPMENT
ALLIANCE
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REVISIONS

1	8/30/17	1ST CITY REVIEW
2	8/30/17	DESIGN TEAM COORDINATION
3	10/12/17	2ND CITY REVIEW
4	10/12/17	DESIGN TEAM COORDINATION

THIRD CITY SUBMITTAL

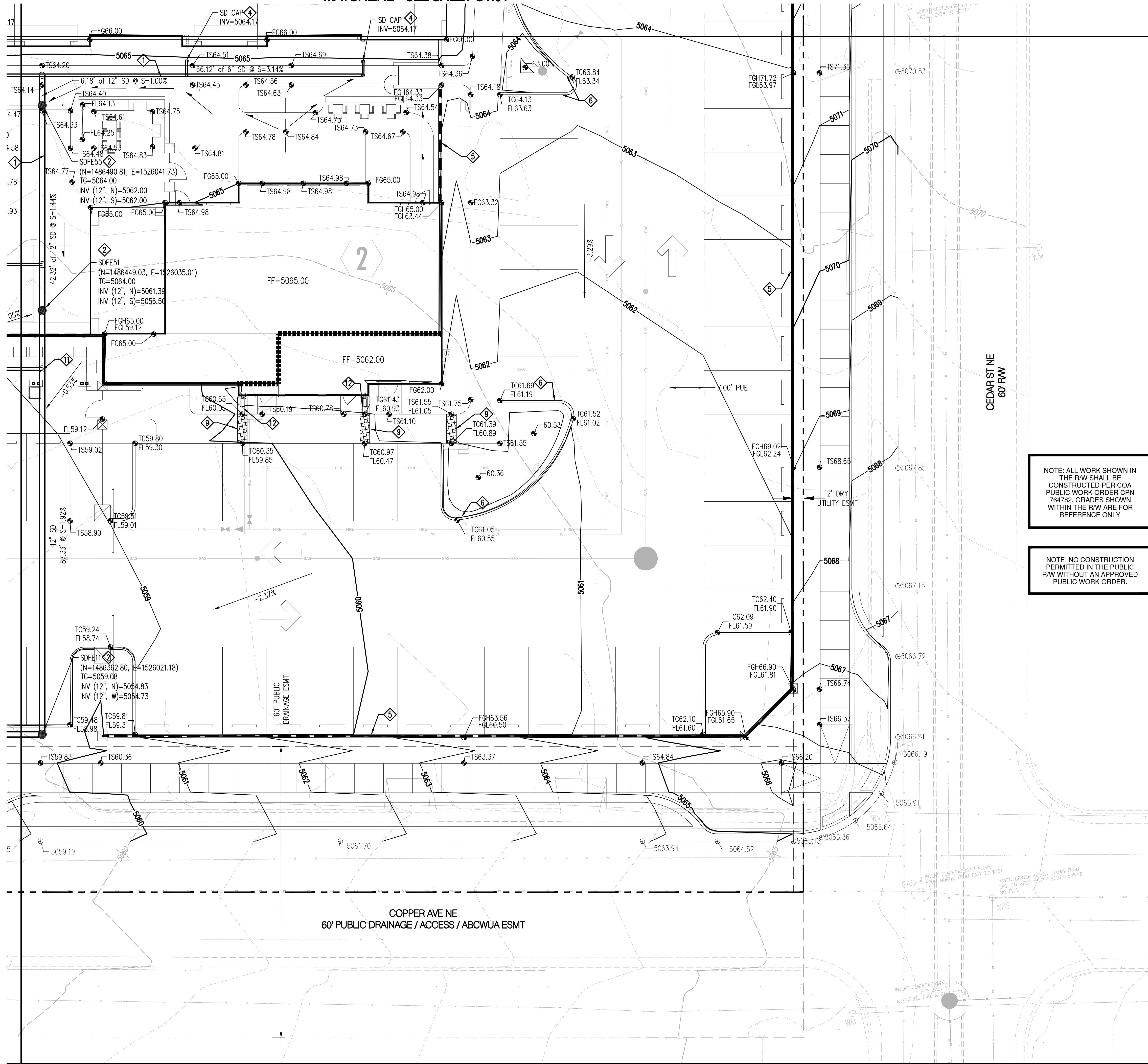
DATE: OCTOBER 12, 2017 ORB # 16-210

C1.01

OVERALL
GRADING PLAN

MATCHLINE - SEE SHEET C1.03

MATCHLINE - SEE SHEET C1.01

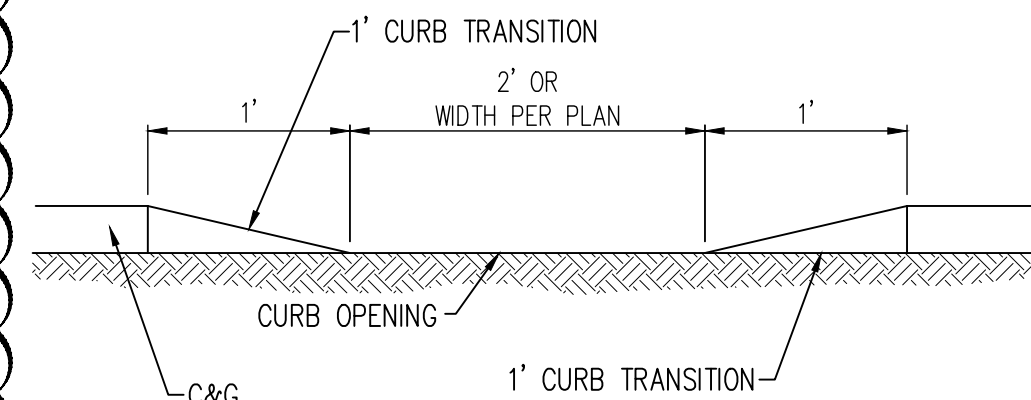


GRADING KEYNOTES

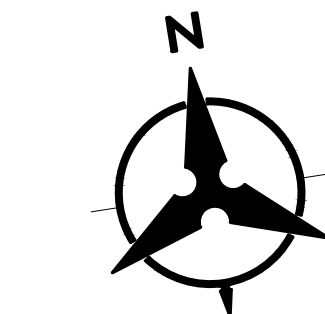
1. INSTALL HDPE (N12 WT, OR APPROVED EQUAL) STORM DRAIN PIPE (SIZE PER PLAN)
2. INSTALL 18" NYLOPLAST STORM DRAIN INLET OR APPROVED EQUAL PER MANUFACTURES SPECIFICATIONS.
3. INSTALL PRE-FABRICATED STORM DRAIN FITTING, EXTEND 6" LINE. CONNECT TO POOL DECK DRAINS; SEE POOL PLANS FOR EXACT LOCATION
4. STUB PROPOSED ROOF DRAIN CONNECTIONS WITHIN 5' OF THE BUILDING; SEE PLUMBING PLANS FOR CONTINUATION
5. INSTALL RETAINING WALL; SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS
6. INSTALL CURB OPENING PER DETAIL A1 THIS SHEET
7. DAYLIGHT STORM DRAIN IN WALL INTO CURB AND GUTTER OF PARKING AREA.
8. INSTALL 3" WIDE CONCRETE VALLEY GUTTER PER COA STD. DWG. 2421
9. INSTALL 24" SIDEWALK CULVERT PER COA STD. DWG. 2236
10. INSTALL TYPE 'C' MANHOLE PER COA STD. DWG. 2101
11. INSTALL PRE-FABRICATED STORM DRAIN FITTING, EXTEND 6" LINE. SEE HARDSCAPE PLANS FOR EXACT LOCATION OF FIRE PIT INLET.
12. INSTALL 24" CONCRETE RUNDOWN PER COA STD DWG 2236 (SANS STEEL COVER)

NOTE: ALL WORK SHOWN IN THE R/W SHALL BE CONSTRUCTED PER COA PUBLIC WORK ORDER CPN 764782. GRADES SHOWN WITHIN THE R/W ARE FOR REFERENCE ONLY

NOTE: NO CONSTRUCTION PERMITTED IN THE PUBLIC R/W WITHOUT AN APPROVED PUBLIC WORK ORDER.



A1) TYPICAL CURB OPENING
NOT TO SCALE



1"=10'

GRADING LEGEND

---	PROPERTY LINE	---	PROPOSED CURB & GUTTER
---	PROJECT LIMITS OF GRADING	---	DIRECTION OF FLOW
---	EXISTING INDEX CONTOUR	---	WATER BLOCK/GRADE BREAK
---	EXISTING INTERMEDIATE CONTOUR	---	SD
---	EXISTING GROUND SPOT ELEVATION	---	PROPOSED STORM DRAIN LINE
---	PROPOSED INDEX CONTOUR	---	PROPOSED STORM DRAIN MANHOLE
---	PROPOSED INTERMEDIATE CONTOUR	---	PROPOSED STORM DRAIN INLETS
---	PROPOSED FLOW LINE	---	PROPOSED RETAINING WALL
---	PROPOSED FINISHED GRADE SPOT ELEVATION	---	EASEMENT
---	TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK, TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW, FFG=FINISH FLOOR GARAGE, FFC=FINISH FLOOR CARRIAGE, FGD=FINISH GROUND DRIVEWAY	---	FF STEP

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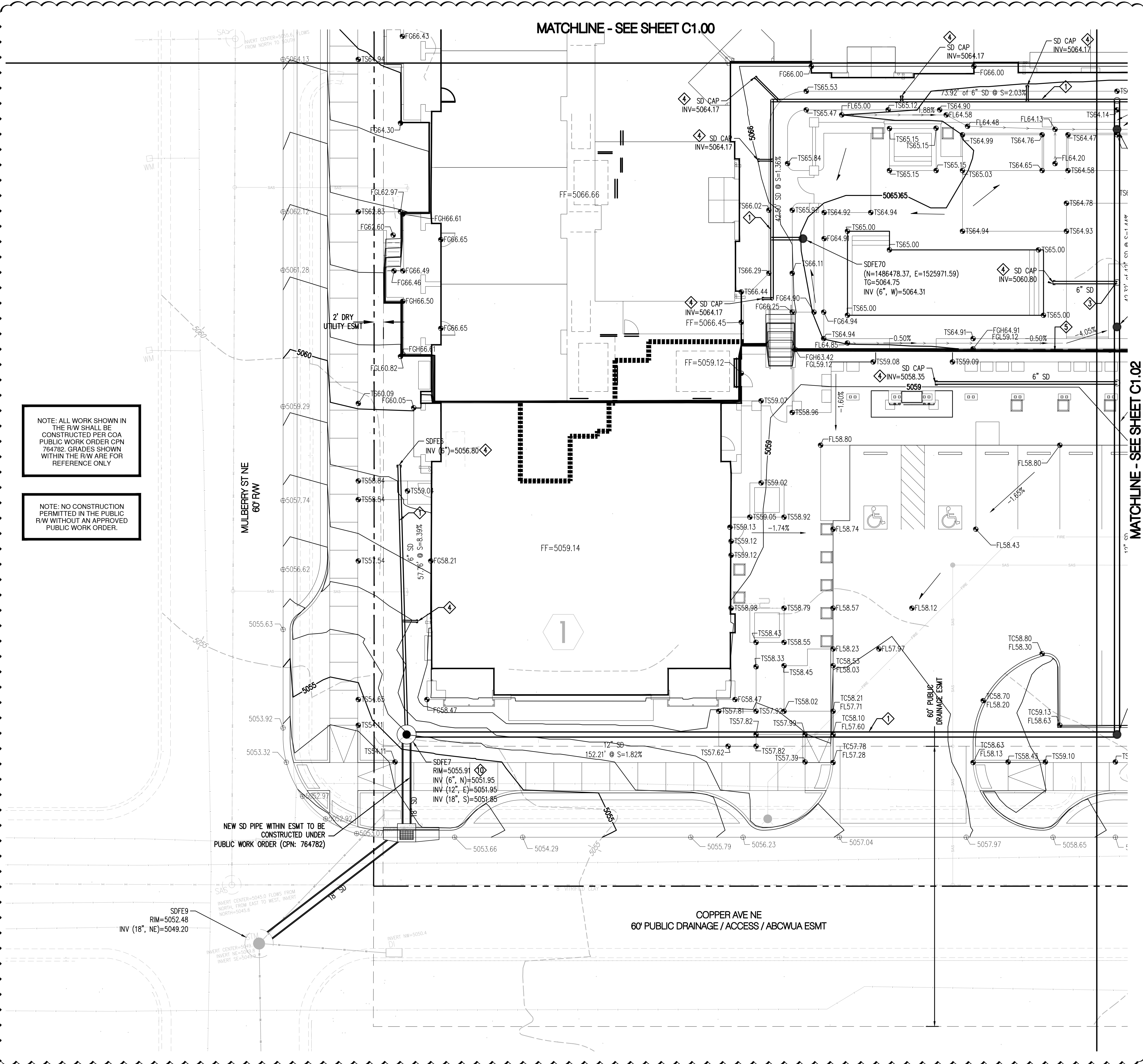
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C1.02

OVERALL
GRADING PLAN

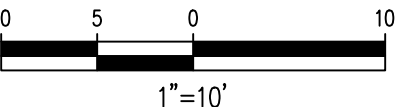
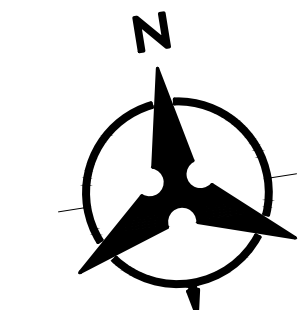
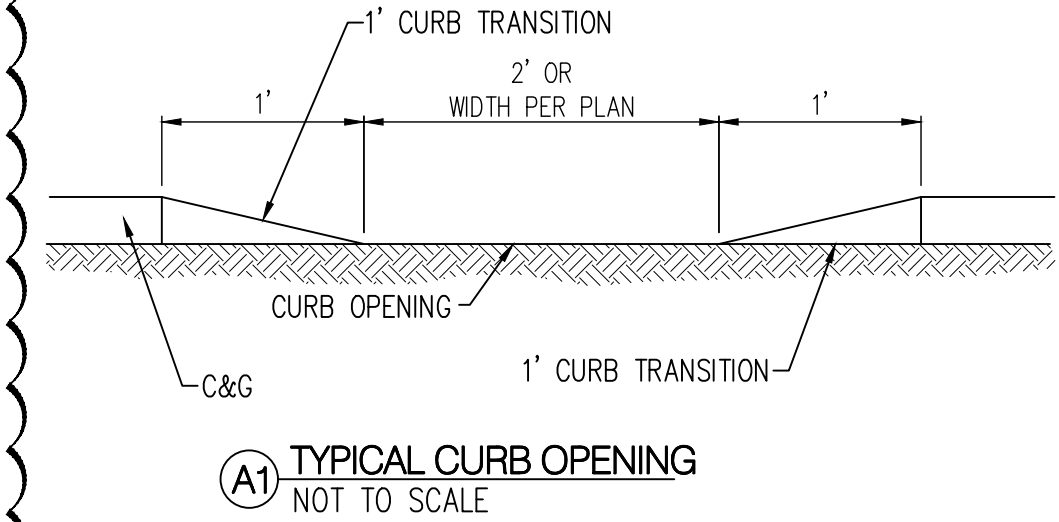


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GRADING KEYNOTES

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OVERALL
GRADING PLAN